

ABSTRACT OF THE DISCLOSURE

There is disclosed an optical printer for printing a grayscale image on a self-developing type photo film unit based
5 on image data. A printing head of the optical printer is provided with a plurality of light emitting elements arranged in a line along a main scan direction whose lighting time lengths are controlled for each pixel in accordance with a tonal level of that pixel. The printing head is shifted relative to the
10 photo film unit in a sub scan direction perpendicular to the main scan direction, to print the image line by line. During each printing cycle of one line, drive voltage applied to the respective light emitting elements are raised with time from an initial value according a predetermined characteristic curve,
15 to increase luminance of the respective light emitting elements as the lighting time for each pixel elapses.